



Soil Monitoring Unit

Features and Technical Specification

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Soil Monitoring Unit



The FLIP-SMU measures soil moisture(kPa) at 2 depths of soil along with soil temperature and sends the data to cloud.

Features

- Weatherproof and rugged IP65 housing
- User Interface
FLIP software for setup configuration
Indication: Ring LED Switch (Power/Network)
- Internal Battery to run more than 3 weeks with out charge
- Solar panel setup for charging
- Cummmunication: TCP/UDP, HTTPs and MQTT
- Data reading frequency set as units of 15 minutes
- Optional GPS
- Easy sensor interface options with SP-16/PG9 connectors versions
- Available in Cellular(2G/3G/4G) / NB-IoT / LoRa versions

Specifications

Sensors

Soil Water Potential Sensor(Watermark)

Measurement range: 0 ~ 200 cb

Frequency Range: 50 ~ 10000 Hz approximately

Soil Temperature Sensor(DS18B20)

Measurement range: -55 ~ 125 °C

Accuracy: ± 0.5 °C accuracy from -10 °C to +85 °C



Device

Microcontroller

STM32 32-bit ARM Cortex MCU

Connectivity

Quectel EC2x - LTE CAT1 - LTE and GSM/GPRS/EDGE with SIM Holder

Power

9-12V 1A Input from Solar Panel or Adaptor

2600/5200mAh Li-Ion battery

Connectors

Plug type IP68 or Standard PG9

Antenna

Stick or screw antenna with SMA connector

Indication

Power button with LED

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No 42, 1st floor, Sakama Chikana Tower-2, Maheshwaramma Temple Road, Chikana Layout, above Axis Bank ATM, Maheswari Nagar, B Narayanapura, Mahadevapura, Bengaluru, Karnataka 560048, INDIA. Ph.- +91-8041706921

www.frugal-labs.com | info@frugal-labs.com

